SI
Mc-2 - Payette
Methods of Cutting
Idaho Yellow Pine.

Progress Report for Season of 1914.

Object of Experiment.

To determine the best method of cutting in the Idaho yellow pine forest.

Method of Study.

The methods used are described in the working plan for 1914.

Work previous to 1914.

In 1913 three five-acre plots were established on Carpentier Creek by Mr. Hodson and cut over by the Michigan-Idaho Lumber Company after being marked by the scattered seed tree method. Two 10 x 50 foot reproduction plots were laid out on each large plot.

Progress in 1914.

1. On plots 1, 2 and 3, on Carpentier Creek, the remaining trees above 4 inches in diameter were permanently numbered with aluminum tags and data was collected regarding the damage by logging to the numbered trees.

2. On account of the shutting down of operations by the Michigan-Idaho Lumber Company, and because the remainder of the area covered by their sale was not suitable for the study, the remaining plots were laid out in Big Creek, which will probably be logged over within a few years. As called for in the working plan for 1914, twelve five-acre plots were laid out in Big Creek, three to be cut over by each of the following methods: (a) group-selection method; (b) scattered selection method; (c) strip method; (d) clear cutting with groups of seed trees. Of each set of plots, one was located in a south slope sub-type, one in a north slope sub-type, and one in a basin sub-type. There was not time this season to quite finish the work of laying out these plots, as noted under the heading "Further Work." Thirteen 10 x 50 foot reproduction plots were established, and approximately 150 light readings and as many soil moisture determinations made. Since the plots were not laid out until the middle and latter part of the summer, it was not possible to get much data on light and soil moisture during the growing season. In mapping the plots, the working plan was departed from to the extent of mapping trees over $5\frac{1}{2}$ feet high instead of mapping all over breast height. $5\frac{1}{2}$ feet is the point used to limit the sapling

class in cruising and other investigative work on the forest.

Precipitation records were kept at the Garden Valley ranger station from June to October inclusive.

The data obtained during the season is to be compiled during the winter.

Further Work.

The work necessary to complete the plots so far established is as follows:

1. Obtain data regarding damage done by logging, to seedlings and saplings on the three plots in Carpentier Creek.

2. Remap the six reproduction plots in Carpentier Creek.

3. Map 11 additional reproduction plots already staked out on the plots in Big Creek.

4. Map and tally the trees on four five-acre plots in Big Creek. All of the plots are staked out and the trees on them numbered with aluminum tags.

5. Obtain data on crown widths on all the Big Creek plots.

6. Obtain a large number of light readings and soil moisture determinations, especially during the growing season, from April 15 to July 30.

In addition to this work, it is recommended that three new plots, to be cut over by the scattered seed tree method, be located on Big Creek as near as possible to the other plots. The timber and topography here are somewhat different from Carpenter Creek, especially as regards composition and density of the stand and the presence of reproduction, and since the first area is already cut over, while the Big Creek area may not be logged for several years, it does not seem that we will have a fair comparison between the Carpenter Creek plots and the others.

It is believed that extensive work on the reproduction part of the study, with a view to determine the conditions limiting natural reproduction of yellow pine, is very important, inasmuch as it is essential that we understand these conditions thoroughly before we attempt large scale reforestation by artificial means.

With the completion of the work here outlined, the only additional work on the project will be periodic resurveys of the plots every five or ten years, except that in event of logging, the reproduction plots at least should be gone over just before logging starts, and the whole plots should be remeasured and mapped as soon as the logging is done.

Cost of the Project.

We have here no information regarding the cost of the work done by Mr. Hodson in 1913.

In 1914 the field work cost as follows:

	Fiscal Year 1914	1915
Transportation		$ 16.30
Meals and lodging		6.20
Field subsistence		51.99
Materials and Equipment	$ 28.56	1.45
Salaries		354.14
Total	$ 28.56	$ 430.08

To finish the work as outlined for next year should cost not over $75.00 for transportation, meals and subsistence, and about $250.00 for salary of the Forest Examiner doing the work.

After that, the cost will probably be from $500 to $600, including salaries, for each five or ten-year period, as the case may be.

The cost of the office work, which will consist only of salaries, can not yet be approximated.

Approved 12/15/14

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Respectfully submitted,

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